RSAC 2025 Conference

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Deepfake Cyber Extortion: A Tabletop Learning Lab

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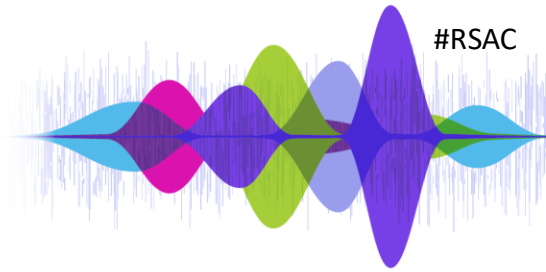

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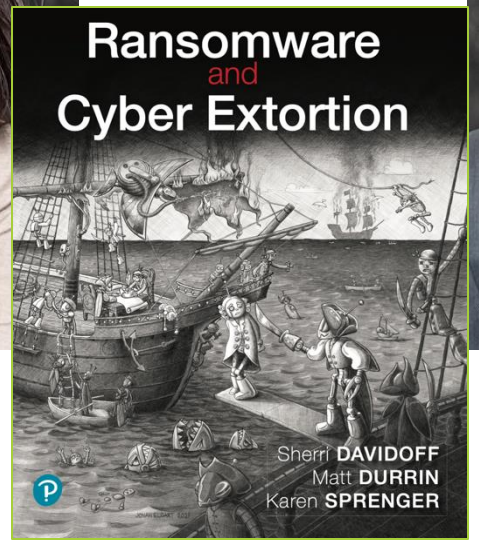
Who Are We?

Sherri Davidoff

Founder & CEO

MIT EE/CS, GCFA, GPEN



Our Book!

Matt Durrin

Director of Training & Research

Evil, sometimes.

LMG SECURITY

Penetration Testing

Advisory & Compliance

vCISO & Support

Cybersecurity Training

Today's Tabletop Exercise

- Deep Fake & Cyber Extortion
  - Threat actors leverage deep fakes
  - Cyber extortion & attempted fraud
- Consider customer-facing impacts
- Practice/evaluate communication
  - Internal & external
- Talk through response strategies
- Interactive breakout exercises
- Lots of discussion!

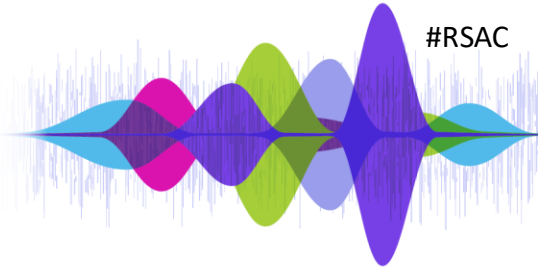
Maximizing Value of the Exercise

- Participate! Speak up & ask questions
- There are NO perfect responses
- There are NO dumb questions
- Not an audit or “gotcha” exercise
- Have fun!

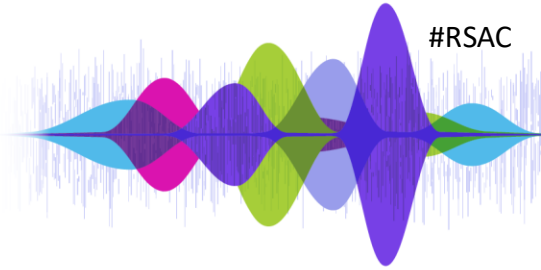
Phase 1: Deepfake Video Crisis

- A video of HackMe Inc.’s CEO appears on YouTube and social media, causing public embarrassment.
- Marketing is locked out of social media accounts!

Phase 1: Small Group Discussion



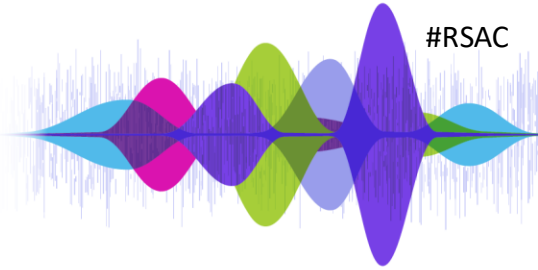
- How do you authenticate the deepfake video?
- What are your first 3 steps in responding to the crisis?
- How do you coordinate with PR, legal, and social media platforms?
- What internal communications do you send to employees and executives?



Phase 1: Large Group Debrief

- Let’s share top response actions!
- Key strategies: digital forensics, crisis PR, access recovery steps.

Response Tips

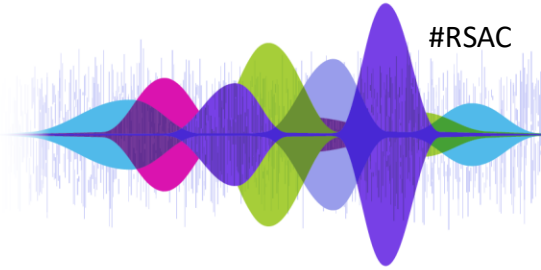


- Verify authenticity using deepfake detection tools, metadata analysis, and forensic techniques.
- Contact your cyber insurer immediately, if applicable.
- Respond quickly with a clear communication plan, acknowledging the issue without amplifying it.
- Engage PR and legal teams to craft messaging for media, employees, and stakeholders.
- Work with platform providers (YouTube, Twitter, etc.) to request takedowns if necessary.

Phase 2: Ransom Demand & Voice Deepfake

- The CEO receives a phone call from a number matching her own, with her voice on the line, representing a ransomware gang. The gang demands $6MM to stop releasing more deepfake videos and return control of the company's social media.

Phase 2: Small Group Discussion



- Do you engage with the attacker? Why or why not?
- What's your ransomware/extortion policy?
- Should law enforcement, cyber insurers, or regulatory agencies be involved?
- How do you respond to employees, clients, and stakeholders?

Phase 2: Large Group Debrief

- Present your decisions on ransom demands and stakeholder communication.
- Let’s discuss legal, ethical, and operational considerations.

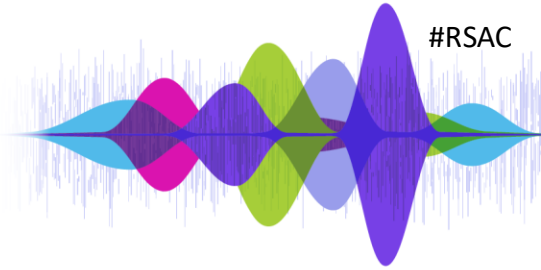
Response Tips

- Consult with your cyber insurer before paying, if applicable
- Evaluate whether paying aligns with legal, ethical, and insurance considerations.
- Use out-of-band verification before responding to the attacker.
- Strengthen MFA and social media recovery processes to prevent further extortion.

Phase 3: Executive Impersonation via Teams

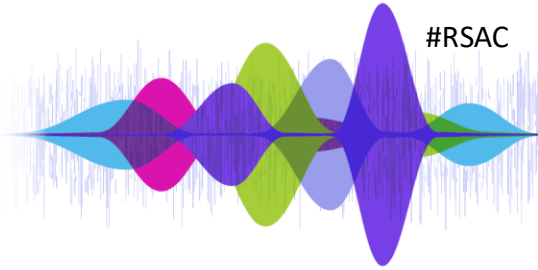
- Hackers use deepfake video and voice cloning to infiltrate Teams calls, posing as executives and spreading confusion. They claim to have accessed sensitive emails and chats.

Phase 3: Small Group Discussion

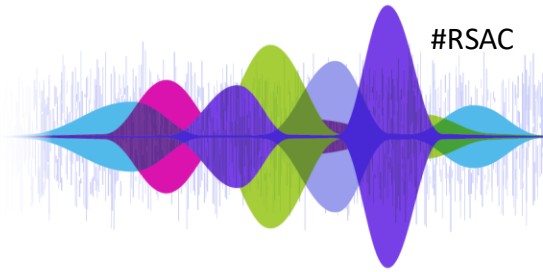


- How do you verify executive communications (calls, emails, video meetings)?
- What authentication measures should be implemented immediately?
- How do you prevent internal confusion and misinformation?

Phase 3: Large Group Debrief



- Teams present verification strategies and security updates.
- Let’s talk about real-world deepfake detection technologies and best practices.



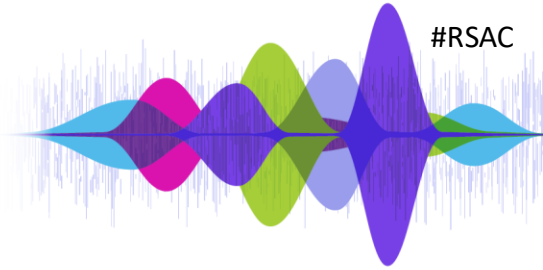
Response Tips

- Update Teams configuration to restrict attendance.
- Implement mandatory video authentication (e.g., real-time liveness detection).
- Require secondary identity verification (e.g., a call-back or challenge-response questions).
- Use internal awareness training to educate employees about deepfake threats.
- Monitor for unusual login behaviors, such as logins from unexpected locations.

Phase 4: CFO Deepfake & Financial Fraud Attempt

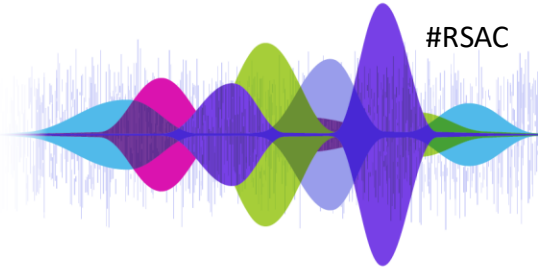
- The Finance Director receives a video call from the CFO instructing a $6MM wire transfer. Suspicious, the Finance Director calls the real CFO via a different channel and confirms the request was fake.

Phase 4: Small Group Discussion



- How do you verify executive communications (calls, emails, video meetings)?
- What authentication measures should be implemented immediately?
- How should finance teams verify high-risk transactions?
- What policies and training should be introduced post-incident?

Phase 4: Large Group Debrief



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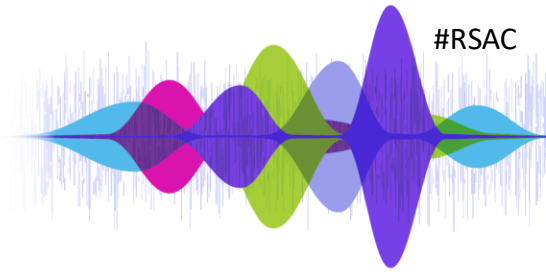
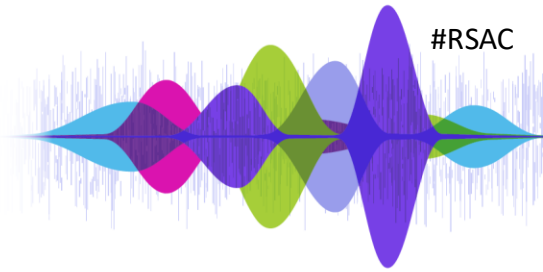


Response Tips

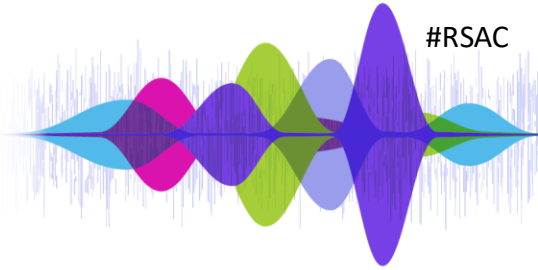
- Require multi-person approval for high-value transactions.
- Train finance teams to recognize deepfake fraud indicators.
- Use AI-driven fraud detection tools to flag unusual requests.
- Implement strict verification policies such as call-backs on a known, pre-verified number.



Time to Brief Your Board!

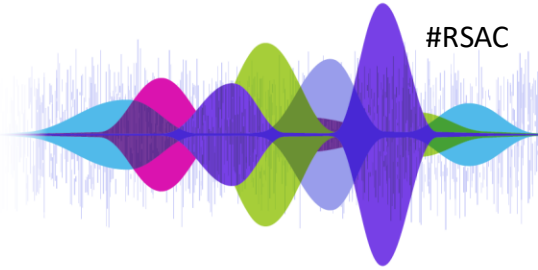
- Each team delivers a 2-minute board-level briefing
- How well did your organization respond?
- What policies need to change immediately?
- What will you present to executive leadership about deepfake threats?

Wrap-Up & Board-Level Briefing



- Review response effectiveness and lessons learned.
- What did you learn today?
- Final reflections and Q&A.

Apply What You Have Learned Today



Next week you should:

- Identify critical assets vulnerable to deepfake cyber extortion.

In the first three months following this presentation you should:

- Assess who has access to critical systems and communication channels.
- Define authentication controls to prevent deepfake-related fraud.

Within six months you should:

- Implement security systems for deepfake detection and verification.
- Establish robust policies to mitigate AI-driven social engineering threats.

Questions?

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